



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of : D. Lamarre, et al.) Art Unit: Not Yet Assigned
U.S. Appln. No. : 10/687,204) Examiner: Not Yet Assigned
Confirmation No. : Not Yet Assigned
U.S. Filing Date : 10/16/2003
Title of Invention : Composition for the Treatment of Infection By Flaviviridae Viruses
Attny. Docket No.: 13/118

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

January 22, 2004

TRANSMITTAL LETTER FOR INFORMATION DISCLOSURE STATEMENT

Sir:

Transmitted herewith concerning the subject application is an Information Disclosure Statement (Form 1449A/B) under 37 C.F.R. §§1.56 and 1.97, as more specifically described hereinbelow.

☒ 1.97(b). This Statement is being filed: i) within three (3) months of the filing date of a national application other than a continued prosecution application under 33 C.F.R. §1.53 (d); ii) within three (3) months of the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in an international application; iii) before the mailing of a first Office action on the merits; or iv) before the mailing of a first Office action after the filing of a request for continued examination under 37 C.F.R. §1.114.

☐ 1.97(c). This Statement is being filed after the time period specified in 37 C.F.R. §1.97(b), but before the mailing date of: i) a final action under 37 C.F.R. §1.113, ii) a notice of allowance under 37 C.F.R. §1.311, or iii) an action that otherwise closes prosecution in the application. This Statement is being accompanied by:

☐ A statement as specified in 37 C.F.R. §1.97(e) [see below]; or

☐ The fee set forth in 37 C.F.R. §1.17(p).

☐ The Commissioner is hereby authorized to charge payment of the \$180.00 fee set forth in 37 C.F.R. §1.17(p) to Deposit Account No.

☐ 1.97(d). This Statement is being filed after the period specified in 37 C.F.R. §1.97(c) but on or before payment of the issue fee. This Statement is accompanied by a statement as specified in 37 C.F.R. §1.97(e) [see below] and the fee set forth in 37 C.F.R. §1.17(p).

☐ 1.97(e).

☐ Each item of information contained in the instant information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three (3) months prior to the filing of the instant information disclosure statement; or

☐ No item of information contained in the instant information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in the instant information disclosure statement was known to any individual designated in 37 C.F.R. §1.56(c) more than three (3) months prior to the filing of the instant information disclosure statement.

☐ The fee set forth in 37 C.F.R. §1.17(p).

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☐ 1.704(d). Each item of information contained in the accompanying information disclosure statement was cited in a communication from a foreign patent office in a counterpart application, which communication was not received by any individual designated in section 1.56(c) more than thirty (30) days prior to the filing of the accompanying information disclosure statement.

☒ The Commissioner is hereby authorized to charge payment of any additional filing fees required under 37 C.F.R. §1.16 and any patent application processing fees under 37 C.F.R. §1.17, or credit any overpayment of same, to Deposit Account No. 02-2955.

Triplicate copies of this form are enclosed.

Respectfully submitted,



Philip I. Datlow
Attorney for Applicant(s)
Reg. No. 41,482

Patent Department
Boehringer Ingelheim Corp.
900 Ridgebury Road, P.O. Box 368
Ridgefield, CT 06877
Tel: (203) 798-4542
Date:

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7

Application Number

10/687.204

Filing Date

10/16/2003

First Named Inventor

D. Lamarre

Art Unit

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Examiner Name

Not Yet Assigned

Attorney Docket Number

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[illegible]

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ *Number ⁴ *Kind Code ⁵ (if known)				
		WO 00/06529	02/10/2000	Istituto Di Ricerche Di Biologia Molecolare		
		WO 00/09543	02/24/2000	Boehringer Ingelheim (Canada) Ltd.		
		WO 00/09558	02/24/2000	Boehringer Ingelheim (Canada) Ltd.		
		WO 00/59929	10/12/2000	Boehringer Ingelheim (Canada) Ltd.		
		WO 01/47883	07/05/2001	Japan Tobacco Inc.		

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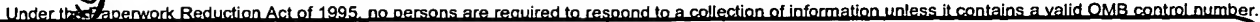
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Application Number	10/687,204
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First Named Inventor	D. Lamarre
Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	13/118

[illegible]

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
		WO 01/85172	11/15/2001	Smithkline Beecham Corporation		
		WO 02/052015	07/04/2002	Boehringer Ingelheim (Canada) Ltd.		
		WO 01/90121	11/29/2001	Novirio Pharmaceuticals Limited		
		WO 02/057287	07/25/2002	Merck & Co., Inc.		
		WO 02/057425	07/25/2002	Merck & Co., Inc.		

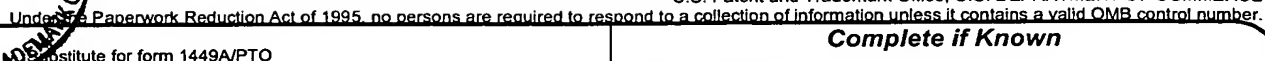
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		WO 02/06246	01/24/2002	Istituto Di Ricerche Di Biologia Molec		
		WO 02/069903	09/12/2002	Biocryst Pharmaceuticals, Inc.		
		WO 02/098424	12/12/2002	Smithkline Beecham Corporation		
		WO 02/100846	12/19/2002	Shire Biochem, Inc.		
		WO 02/100851	12/19/2002	Shire Biochem, Inc.		

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U. S. PATENT DOCUMENTS

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		WO 03/064455	08/07/2003	Boehringer Ingelheim (Canada) Ltd.		
		WO 03/064456	08/07/2003	Boehringer Ingelheim (Canada) Ltd.		
		WO 99/07733	02/18/1999	Boehringer Ingelheim (Canada) Ltd.		
		WO 99/07734	02/18/1999	Boehringer Ingelheim (Canada) Ltd.		
		EP 1 256 628	11/13/2002	Agouron Pharmaceuticals, Inc.		

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NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		ALTSCHUL, S. et al.; "Gapped BLAST and PSI-BLAST: A New Generation of Protein Database Search Programs"; Nucleic Acids Research; 1997; Vol. 25, No. 17; 3389-3402	
		BEAMES, B., et al.; "Development of a Primary Tamarin Hepatocyte Culture System for GB Virus-B: A Surrogate Model for Hepatitis C. Virus"; J. Virology; 2000; Vol. 74, No. 24; 11764-11772	
		BERGE, S., et al., "Pharmaceutical Salts"; J. Pharm. Sciences; 1977; Vol. 66; 1-19	
		BUTKIEWICZ, N., et al.; "Virus-Specific Cofactor Requirement and Chimeric Hepatitis C Virus/GB Virus B Nonstructural Protein 3"; J. Virology; 2000; Vol. 74, No. 9; 4291-4301	
		KIM, J.L. et al; "Crystal Structure of the Hepatitis C Virus NS3 Protease Domain Complexed with a Synthetic NS4A Cofactor Peptide"; Cell; Vol. 87; 343-355	
		LIN, C., et al.; "A Central Region in the Hepatitis C Virus NS4A Protein Allows Formation of an Active NS3-NS4A Serine Proteinase Complex In Vivo and In Vitro"; J. Virology; 1995; Vol. 69, No. 7; 4373-4380	
		LOHMANN, V., et al.; "Replication of Subgenomic Hepatitis C Virus RNAs in a Hepatoma Cell Line"; Science; 1999; Vol. 285; 110-113	
		LOVE, R., et al.; "The Crystal Structure of Hepatitis C Virus NS3 Proteinase Reveals a Trypsin-like Fold and a Structural Zinc Binding Site"; Cell; 1996; Vol. 87; 331-342	
		MORRISON, J.; "Approaches to the Study and Analysis of the Inhibition of Enzymes by Slow and Tight-Binding Inhibitors"; Comments Mol. Cell. Biophys.; 1985; Vol.2, No.6; 347-368	
		MUERHOFF, A.S., et al.; "Genomic Organization of GB Viruses A and B: Two New Members of the Flaviviridae Associated with GB Agent Hepatitis"; J. Virology; 1995; Vol. 69, No. 9; 5621-5630	

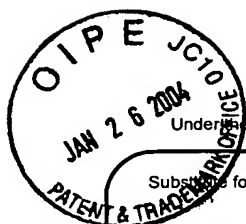
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Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		MURTHY, H.M.K., et al.; "Dengue Virus NS3 Serine Protease"; J. Biological Chemistry; 1999; Vol. 274, No. 9; 5573-5580	
		RYAN, M., et al; "Virus-Encoded Proteinases of the Flaviviridae"; J. Gen. Virology; 1998; Vol. 79; 947-959	
		SCARSELLI, E., et al.; "GB Virus B and Hepatitis C Virus NS3 Serine Proteases Share Substrate Specificity"; J. Virology; 1997, Vol. 71, No. 7; 4985-4989	
		STEINKUHLER, C., et al.; "In Vitro Activity of Hepatitis C Virus Protease NS3 Purified from Recombinant Baculovirus-infected Sf9 Cells"; J. Biological Chemistry; 1996; Vol. 271, No. 11; 6367-6373	
		THOMPSON, J., et al.; "Clustal W: Improving the Sensitivity of Progressive Multiple Sequence Alignment Through Sequence Weighting, Position-Specific Gap Penalties and Weight Matrix Choice"; Nucleic Acids Res.; 1994; Vol. 22; No. 22; 4673-4680	
		ZHONG, W., et al.; "Nucleoside Triphosphatase and RNA Helicase Activities Associated with GB Virus B Nonstructural Protein 3"; Virology; 1999; Vol. 261; 216-226	

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